



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,401	02/07/2002	Hidefumi Tominaga	ASA-1060	7262

7590 05/06/2004
Mattingly, Stanger & Malur, P.C.
1800 Diagonal Road, Suite 370
Alexandria, VA 22314

EXAMINER

WONG, KIN C

ART UNIT	PAPER NUMBER
----------	--------------

2651

DATE MAILED: 05/06/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,401

Applicant(s)

TOMINAGA ET AL.

Examiner

K. Wong

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims (3-4) are objected to because of the following informalities: the phrase "two or more steps," especially with the word "step" is not clear in context which could be construed as functional or processing steps. The examiner suggests a replacement of the "... more steps" with "... more stepwise" as accordingly with depiction in the instant figure 5. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims (1-4) are rejected under 35 U.S.C. 102(b) as being anticipated by Boutaghou et al (5633767).

Regarding claim 1: Boutaghou et al discloses a control procedure for a magnetic disk drive including magnetic disk media (element 11 in figure 1 of Boutaghou et al), a slider (element 16 in figure 1) mounting thereon a magnetic head facing the magnetic disk media (as depicted in figures 3 and 4 of Boutaghou et al), support members Element 15 in figure 1) for supporting the slider, an actuator (element 12 in figure 1) for rotatably supporting the support members, an electronic circuit (see col. 5, lines 15-27 of Boutaghou et al) for controlling drive of the actuator and signal processing, and a

holding member (element 27 in figure 1) for holding the slider, the method including the steps of:

unload step (as depicted in figure 5 of Boutaghou et al) for starting process for holding the slider on the holding member while reading information from the magnetic disk media through the magnetic head (see col. 5, lines 25-39 of Boutaghou et al);

and load step (as depicted in figure 3) for causing the magnetic head to read the information from the magnetic disk media while following the holding member, after starting the process for causing the slider to land from the holding member onto the magnetic disk media (see col. 4, line 49 to col. 5, line 13 and col. 5, lines 25-65 of Boutaghou et al).

Regarding claim 2: Boutaghou et al depicted in figure 3 that wherein the process for holding the slider following the holding member is divided into two or more stepwise [steps] in advance, and at the end of movement of the slider in each of the two or more stepwise [steps], the value of a voltage or a current for driving the actuator is stored (see associated description for details).

Regarding claim 3: Boutaghou et al depicted in figures 3 –5 that wherein the process for holding the slider following the holding member is divided into two or more stepwise [steps] in advance, and the value of a voltage or a current for driving the actuator is constant in each of the two or more stepwise [steps] (see associated description for details).

Regarding claim 4: Boutaghou et al discloses a magnetic disk drive (as depicted in figure 1), including:

a magnetic disk media (element 11);
a slider (element 16) mounting thereon a magnetic head facing magnetic disk media (as depicted in figures 1 and 3);
support members (element 25) for supporting the slider;
an actuator (element 12) for rotatably supporting the support members; and
an electronic circuit (see col. 4, lines 15-27) for controlling drive of the actuator and signal processing, the electronic circuit having a function of setting a parameter for driving the actuator in each of the two or more stepwise [steps] for moving the slider while following the holding member and a function of performing a mechanical load/unload operation smoothly using the set parameters (as depicted in figures 3 and 4).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boutaghou et al (5455723), Feng (6320717), Pan et al (6590731) and Hirano et al (6504663) are cited for loading/unloading of the head onto the disk.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Wong whose telephone number is (703) 305-7772.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Hudspeth can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number: 10/067,401

Page 5

Art Unit: 2651

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kw

2 May 04



DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600